

In the Claims:

1. (Currently Amended) A method for controlling the forwarding quality in a data ~~network~~
~~comprising network~~, the method comprising:

measuring ~~[(S 11)]~~ end-to-end forwarding quality in measurement nodes ~~[(106)]~~
located outside the network ~~core and~~ core;

detecting forwarding quality violations in at least one path between the measurement
nodes; ~~these nodes, characterised by the further steps of:~~

~~selecting (S13, S15, S17)~~ selecting at least one potentially overloaded interface
~~comprised in~~ along the at least one path where forwarding quality violations were detected by
combining knowledge about different end-to-end measurements performed in the ~~network~~, data
network with knowledge about the network topology ~~topology, i.e. which interfaces are~~
~~traversed over each individual path~~, and knowledge about booking levels and forwarding
capacity for ~~[(the)]~~ interfaces along the at least one path; and

~~defining (S23)~~ defining a new or adjusting ~~[(S21)]~~ an already existing provisioning
level for each selected interface, said provisioning level defining a maximum admitted sum of
forwarding resources requested directly or indirectly by applications for their application data
flows ~~flows, ADFs~~, for the ~~interface/s~~, interfaces, such that the usage of each path detected to
have forwarding quality violations is limited at one or more interfaces.

2. (Currently Amended) ~~[[A]]~~ The method according to ~~[[clam]]~~ claim 1, ~~characterised by~~
further comprising iterating ~~[(S29)]~~ the ~~process~~ method to improve ~~[(the)]~~ provision settings of
the ~~provisioning levels in the system~~ data network.

3. (Currently Amended) [[A]] The method according to claim 1, characterised by further comprising storing [[(S27)]] information about previous end-to-end measurements and previous booking levels for the interfaces.

4. (Currently Amended) [[A]] The method according to claim 1, characterised wherein the selecting is performed at least in part by using history of previous booking levels possibly together with [[any]] associated quality violations, forwarding capacities and/or provisioning levels for the interfaces ~~for the selection of at least one potentially overloaded interface.~~

5. (Currently Amended) [[A]] The method according to claim 4, characterised by 3, further comprising:

detecting [[(S33)]] that a previously set provisioning level for an interface is reached without any measured quality violation on paths involving ~~this interface~~ the interface; and

by using [[(S35)]] the stored information of previous end-to-end measurements and previous booking ~~levels~~ levels, selecting [[(S37)]] at least one other interface that probably caused the end-to-end forwarding quality violation measured when the previously set provisioning level was ~~set and remove (S39)~~ set, removing or increase increasing the provisioning level for the previously selected ~~interface~~ interface, and ~~instead provide~~ providing a provisioning level to ~~each new selected interface~~ the at least one other interface, or if no other potentially overloaded interfaces exist, ~~increase (S39)~~ increasing the limiting provisioning level.

6. (Currently Amended) [[A]] The method according to claim 1, characterised in that wherein the defining [[(S23)]] of [[a]] the new or [[the]] adjusting [[(S21)]] of [[an]] the already existing provisioning level for ~~the at least one~~ each selected interface is performed at least in part

by setting the provisioning level equal to the ~~booking level~~ booking level for the selected interface at the time ~~[[for]]~~ of the detected quality violation.

7. (Currently Amended) ~~[[A]]~~ The method according to claim 1, ~~characterised in that~~ wherein the defining ~~[[S23]]~~ of ~~[[a]]~~ the new or ~~[[the]]~~ adjusting ~~[[S21]]~~ of ~~[[an]]~~ the already existing provisioning level for ~~the at least one~~ each selected interface is performed at least in part by setting the provisioning level lower than the ~~booking level~~ booking level in the selected interface at the time ~~[[for]]~~ of the detected forwarding quality violation and either pre-empting some reservations to reach the provisioning level or waiting for some reservations to be released to reach the provisioning level.

8. (Currently Amended) ~~[[A]]~~ The method according to claim 6, ~~characterised by~~ wherein choosing one of the described provisioning level setting methods ~~depending~~ depends on which level of quality violation ~~[[that]]~~ was measured.

9. (Currently Amended) A node in a data network, said node ~~being adapted to control the~~ controlling a forwarding quality in the data network and ~~comprises~~ comprising:

receiving means ~~(57) adapted~~ to receive information of end-to-end measurements of forwarding quality performed in the data network and network, ~~characterised in that the~~ receiving means (57) further is adapted to receive information of the data network topology and information of booking levels and forwarding capacity for interfaces in the data network; ~~network and in that it further comprises:~~

~~-selecting~~ selecting means ~~[[S9]]~~ connected to the receiving means ~~(57) and adapted~~ to combine information from the end-to-end measurements with the topology information and the

information of booking levels to select at least one potentially overloaded interface comprised in at least one path where forwarding quality violations ~~[[has]]~~ have been detected the by end-to-end measurements of forwarding quality; and

~~provisioning~~ provisioning level defining and adjusting means ~~[[61]]~~ connected to the selecting means ~~(59)~~ and ~~adapted~~ to define a new or adjust an already existing provisioning level for the at least one ~~selected~~ potentially overloaded interface, said provisioning level defining a maximum admitted sum of forwarding resources requested directly or indirectly by applications for their application data ~~flows, ADFs,~~ flows for the ~~interface/s,~~ interfaces, such that ~~[[the]]~~ usage of each path detected to have forwarding quality violations is limited at one or more interfaces.

10. (Currently Amended) ~~[[A]]~~ The node according to ~~[[clam]]~~ claim 9, ~~characterised in that it is adapted to iterate wherein the node iterates~~ the process of defining and adjusting provisioning levels to improve the settings of the provisioning levels in the system.

11. (Currently Amended) ~~[[A]]~~ The node according to claim 9, ~~characterised in that it comprises further comprising~~ storing means ~~[[63]]~~ connected to the receiving means ~~[[57]]~~ and to the selecting ~~means (59),~~ means, said storing means ~~(63) being adapted~~ to store information about previous end-to-end measurements and previous booking levels for the interfaces.

12. (Currently Amended) ~~[[A]]~~ The node according to claim 11, ~~characterised in that wherein the selecting means (59) is adapted to retrieve~~ retrieves information from the storing means ~~[[63]]~~ in order to use history of previous booking levels ~~possibly~~ together with any

associated forwarding quality violations, forwarding capacities and/or provisioning levels for the interfaces for ~~[[the]]~~ selection of at least one potentially overloaded interface.

13. (Currently Amended) ~~[[A]]~~ The node according to claim 11, ~~characterised in that~~ wherein the receiving means (57) ~~further is adapted to receive~~ receives information that a previously set provisioning level in an interface is reached without any measured forwarding quality violation on paths involving this interface and ~~in that~~ the selecting means (59) ~~is adapted to by using~~ uses the stored information of previous end-to-end measurements and previous booking levels to select at least one other interface that probably caused the forwarding quality violation measured when the previously set provisioning level was ~~[[set]]~~ set, and the defining and adjusting means (61) ~~is adapted to remove~~ removes or ~~increase~~ increases the provisioning level for the previously selected interface and ~~instead provide~~ provides a provisioning level to each new selected ~~interface~~ interface, or if no other potentially overloaded interfaces exist, increase the limiting provisioning level.

14. (Currently Amended) ~~[[A]]~~ The node according to claim 9, ~~characterised in that~~ wherein the defining or adjusting means (61) ~~is adapted to set~~ sets the provisioning level equal to the ~~booking level~~ booking level for the interface at the time ~~[[for]]~~ of the detected quality violation.

15. (Currently Amended) ~~[[A]]~~ The node according to claim 9, ~~characterised in that~~ wherein the defining or adjusting means (61) ~~is adapted to set~~ sets the provisioning level lower than the ~~booking level~~ booking level for the interface at the time ~~[[for]]~~ of the detected forwarding quality violation and either pre-empting some reservations to reach the provisioning level or waiting for some reservations to be released to reach the provisioning level.

16. (Currently Amended) [[A]] The node according to claim 14, ~~characterised in that~~
~~wherein~~ the defining or adjusting means (61) ~~is adapted to choose~~ chooses one of the described
provisioning level setting methods depending on which level of forwarding quality violation
[[that]] was measured.

17. (Cancelled)

18. (Currently Amended) A computer-readable medium ~~program product stored on a~~
~~computer usable medium~~, encoded with computer instructions which when executed cause
computer to perform a method, the method comprising ~~readable program for causing a~~
~~processing means in one or more nodes in a data network, to control an execution of the steps of~~
claim 1.

19. (Currently Amended) [[A]] The method according to claim 2, ~~characterised by~~ further
comprising storing [[(S27)]] information about previous end-to-end measurements and previous
booking levels for the interfaces.

20. (Currently Amended) [[A]] The method according to claim 7, ~~characterised by~~ 8,
wherein the choosing one of the described provisioning level setting methods ~~depending~~ depends
on which level of forwarding quality violation [[that]] was measured.